

## Text: the Natural Medium for Interaction

*A new interactive medium has emerged which is taking off like wildfire in countries around the world. For once, it is being driven by user demand – market pull – rather than the ‘technology push’ of suppliers.*

Natural human communication is always interactive: a two-way conversation. Over the past century mass communication – TV, radio and before that print media – has changed the world. But all these media only work one-way, delivering a standard, one-size-fits-all broadcast message. *Interactive* mass media, that allow people to talk back, have huge potential for delivering new services, and for creating a personal channel for sales and marketing, direct to the individual. By far the most successful interactive medium up to now has been the Web. But it is still complex and slow, and it can only be used sitting at a PC.

The surprise success is text. Text messaging is showing some 50% year on year growth – more in some countries – and is now used by more people in Europe than email. Once thought of as a medium for teenagers, text is now used by all age groups, and daily by millions for both social and business communication. Crucially, the majority of the population in most developed countries – more than 80% in the UK, for example – already carry with them a text-capable mobile phone: perhaps the most personal, and some would say the most important, object they own.

Text is also hugely profitable for mobile operators: Analysys estimates that text generates

nearly USD1000 of revenue per Mbyte of traffic, compared with less than USD1 per Mbyte for voice telephony. British operator O2 (formerly

BT Cellnet) estimates that by the end of 2004, 25% of its revenue will come from data services, primarily text. Meanwhile Yankee Group predicts that the number of mobile subscribers – already one in six of the world’s population – will increase 49% by 2007, by which time they will be generating

subscriber revenues comparable in value to world crude oil production. If these figures are correct, by the end of the decade the mobile industry will outstrip oil as a key driver of the global economy. And a significant proportion of its profits will come from text.

### **Text for interaction**

What has emerged only recently is the potential of text as an interactive medium. Text has been used in the past to send alert messages to users (giving football scores, for example). But something new emerged when text was used alongside television programmes for interactive response and voting. Text provided a ready-made response channel for viewers to talk back – and to get involved with the action. In countries including the UK, Netherlands and Spain this produced millions of replies, even when a premium charge was applied – and incidentally created



an entirely new revenue stream for broadcasters and telecommunications operators. Text has also been used as a response channel for radio, with great success.

Recognising the potential, we have been working for the past three years with mobile applications developer mTank to research and develop a system that we term Intelligent Text™. Intelligent Text™ draws on the experience we have gained over the past decade and a half, working on interactive systems for TV, Internet and mobile. It allows text messaging to be used not only for person-to-person communication, but for interaction with businesses, media and other organisations. It also creates a text-based human interface that can be used to communicate with automated and semi-automated systems of many different kinds. The results have proven to have a wide range of uses in many different sectors. In our experience, people react naturally to a text-based dialogue with an organisation or with an automated system, just as they would to a text-based conversation with a person.



Unlike other interactive solutions, text does not seek to replace existing channels of mass communication, which have the benefit of decades of evolution, are familiar to billions, and do their job well. Rather it works alongside them, adding an ‘instant’ interactive response facility that can be set up virtually instantaneously, and at low cost. Text is the most intimate but also the least obtrusive medium: it works anytime and anywhere, without stealing the show. A few seconds of partial attention is all it takes to send or receive a message, without breaking off whatever you are doing, or whoever you are doing it with.

Conventional wisdom suggests that, compared to a rich visual medium such as the Web, text should be such a limited channel that it is difficult to use it for anything worthwhile. After all, how much information can you compress into just 160 characters? Experience, however, shows otherwise. By rethinking the process of

interaction, and in particular by combining text with other extremely rich media such as TV, radio and print, it is possible to come up with solutions that work better, take less time, and are easier to understand and use. And, of course, solutions that work anytime and anywhere.

At the heart of Intelligent Text™ is a rapid-response intelligent database system, which means that dialogues and responses can be automatically tailored to individuals, without the complexity involved in setting up personalised responses on the Web. Intelligent Text™ knows the precise history of dialogue with each individual, as well as a wide range of personal details and other information. Just

### **Personalised dialogue – with millions**

Intelligent Text™ is designed to manage a personalised interactive dialogue with thousands or millions of people, anytime and anywhere. In a departure from previous interactive systems, Intelligent Text™ is designed to work either alone, or alongside any existing communication medium – including TV, radio, Web, print media, and advertising. People are used to having a conversation at the same time as doing other things, so this is perfectly natural. No special or upgraded equipment is needed: just an ordinary mobile phone.

like a conversation between people, it can tailor messages sent, and interpret messages received, in the light of this knowledge. Intelligent Text™ provides a ready-made framework for creating interactive dialogue. Because responses are text-based, content creation costs are low.

### **Visual impact requires money**

Conventional mass communication systems require massive budgets to create visual impact, in order to break through the barriers of individual consciousness and get noticed. A better result can often be achieved by sending a short text message direct to an individual's mobile phone – a highly personal object which many regard almost as a part of themselves.

But in exchange for this, messages must be directly relevant to the individual, and to meet regulatory requirements in most countries, individuals must have given permission to receive the message. There is a strong industry consensus, backed up by regulatory action, which is determined to prevent the problems of 'spam' that have plagued email, and have made it all but unusable.

This means that a different communication philosophy must be adopted when dealing with mobile messaging. Messages must be personalised to individual users; permissions must be collected and carefully recorded; and users' individual preferences must be taken into account at all times. Messages must be phrased differently: users will tolerate a 'conversation' that is directly relevant to their needs, but they will not put up with shouting in their ear – which is how a conventionally phrased advertising message comes across when delivered through the highly intimate medium of mobile messaging.

### **The technology of interaction**

All of this requires a new technical approach, as well as a new marketing philosophy. Mass communication technology sends the same message to millions: this is not acceptable. Even



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the approach of the Web is not good enough: a Web site displays essentially the same page to every user, although a limited amount of personalisation is possible.

Successful text interaction requires a fully personalised dialogue with thousands or millions of individuals. Each message received must be treated individually, and may require a different response. The technology needed to do this is different from that needed to implement the Web, although it shares some of the same elements.

Intelligent Text™ technology is based on three years' research and development, together with extensive experience of designing and implementing text-based interaction for purposes ranging from games and competitions to interactive voting and debate on critical current affairs issues. It has been applied to interactive games and quizzes involving TV, Web and print media, to voting for literary awards, and to public debate on issues including war in Iraq. It has been used to collect money for charity, and to measure public opinion. mTank has worked with leading organisations including O2,



Channel 5, leading organisations including O2, Channel 5, Granada TV and WHSmith to develop and refine Intelligent Text™ into an interactive tool that can be used for any purpose.

### Text for transactions

Text can be used not just for interaction, but for transactions too. Already, London's congestion charge can be paid by text; but much more is possible.

Premium text messages – charged directly to the user's mobile phone bill, with a proportion of the charge passed on by mobile operators to third parties – are growing steadily, and in the UK are due to overtake premium voice minutes in the summer of 2004.

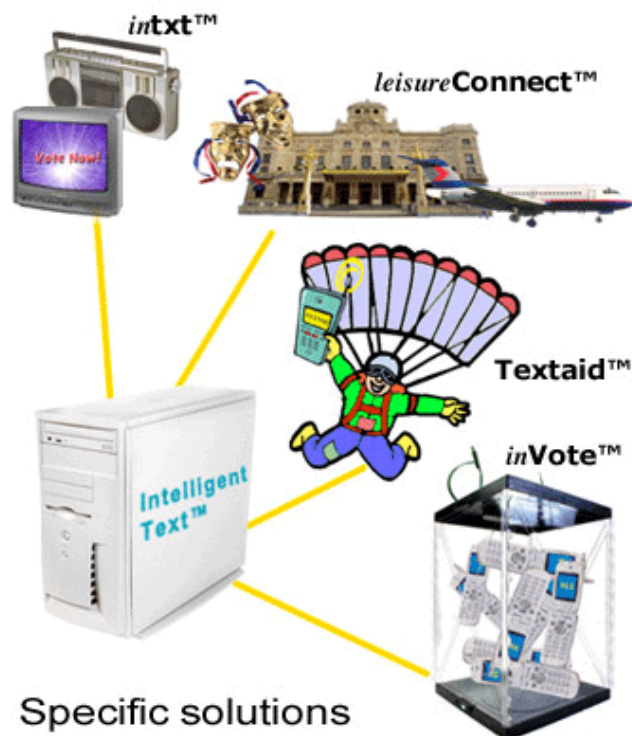
But even this is only the start. What is emerging is that text can be used for a very wide range of transactions, including trading in a variety of goods and services. Surprisingly, transactions and trading by text can be easier than on the Web. However a specific approach is needed. Text transactions are in many ways simpler, easier to understand, and certainly quicker – they have to be. The Web, unfortunately, encourages complexity and sometimes overdesign. Working through pages of forms is not viable on a mobile phone: the rule is be simple, direct and immediate.

### Specific solutions

mTank has used Intelligent Text™ to create solutions designed for specific sectors and applications, including:

- **intxt™**, an interactive response channel for TV, radio and print media. *intxt™* for Radio, for example, allows presenters to carry on a personalised dialogue with millions of listeners, giving each the experience of personal interaction;
- **inVote™**, a complete interactive voting solution that includes not only text, but voting online, by post, phone, and at terminals in public locations;
- **Textaid™**, a modular interactive text solution for charities, supporting donor acquisition, campaigning, supporter communication, and donation by premium text;
- **leisureConnect™**, a system for marketing and selling accommodation, travel and other services, enabling instant trading by text.

The variety of solutions gives some indication of the potential for interactive text. But so far this has only scratched the surface of what is possible. Other sector-specific solutions and applications are in development, and many more are planned.



### Specific solutions

## Beyond the Web

Until now, the Web has been the only realistic option for mass market interaction. But attempts to migrate Web-based solutions onto mobile devices (in the form of WAP, for example) have met with mixed success at best. Underlying all forms of PC- and Web-based interaction is the desktop metaphor; and however hard you try, a desktop does not fit easily onto a phone.

The way text works is a great deal closer to the way people naturally interact with one another. What underlies text is not the metaphor of a desktop, but the most basic pattern of human interaction: two-way conversation. This means, for one thing, that text fits easily and naturally on a mobile phone. Text reflects the way you interact with another person; the Web reflects the way you interact with paper on a desk - which may be one reason why some people do not like using it.

It is users who have driven the growth of text, because they find it convenient. It is easy, quick and cheap to send or receive a text message. It takes less energy to communicate something of importance, and diverts less attention from doing

other things, than almost any other medium. And it is based on the way human beings have interacted with each other for centuries – in fact, for millennia.

In short, text works – whatever you are doing, and wherever you are. Text is turning out to be an extraordinarily powerful – and natural – method of interaction that can be used on its own or alongside any other medium, and that can be applied to just about any purpose. Text opens the way for remarkable new developments in the way we communicate and interact – with each other, with businesses and other organisations, and with the vast database of human knowledge and experience that now exists in digital form.

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